## **AMENDMENTS TO THE CLAIMS**

1. (Cancelled) An active implantable medical device comprising:

a first and a second stimulation stage of a cardiac cavity,

said first stimulation stage comprising:

an output capacitor,

a stimulation terminal,

a charging circuit to charge a capacitor to a predetermined stimulation voltage that is near to an effective threshold for stimulation of the patient carrying the device,

a first switch able to connect the output capacitor to the stimulation terminal,

means for performing a capture test able to determine whether a delivered stimulation is effective or there was loss of capture,

means for adjusting the stimulation voltage according to whether a delivered stimulation is effective, and

means for delivering a backup-stimulation after the capture test determined a loss of capture,

said device being further characterized in that the means for delivering a backupstimulation comprises:

an additional capacitor capable of storing a second predetermined voltage,

a second switch to connect said additional capacitor to discharge said second predetermined voltage to said stimulation terminal,

said additional capacitor further comprising a specific capacitor, distinct from said output capacitor, wherein the charging circuit is able to charge said specific capacitor to said second predetermined voltage, wherein said second predetermined voltage is higher than said first predetermined stimulation voltage, and

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